



**Stimulation Treatment**

**Date: 10/23/2021**

**for**

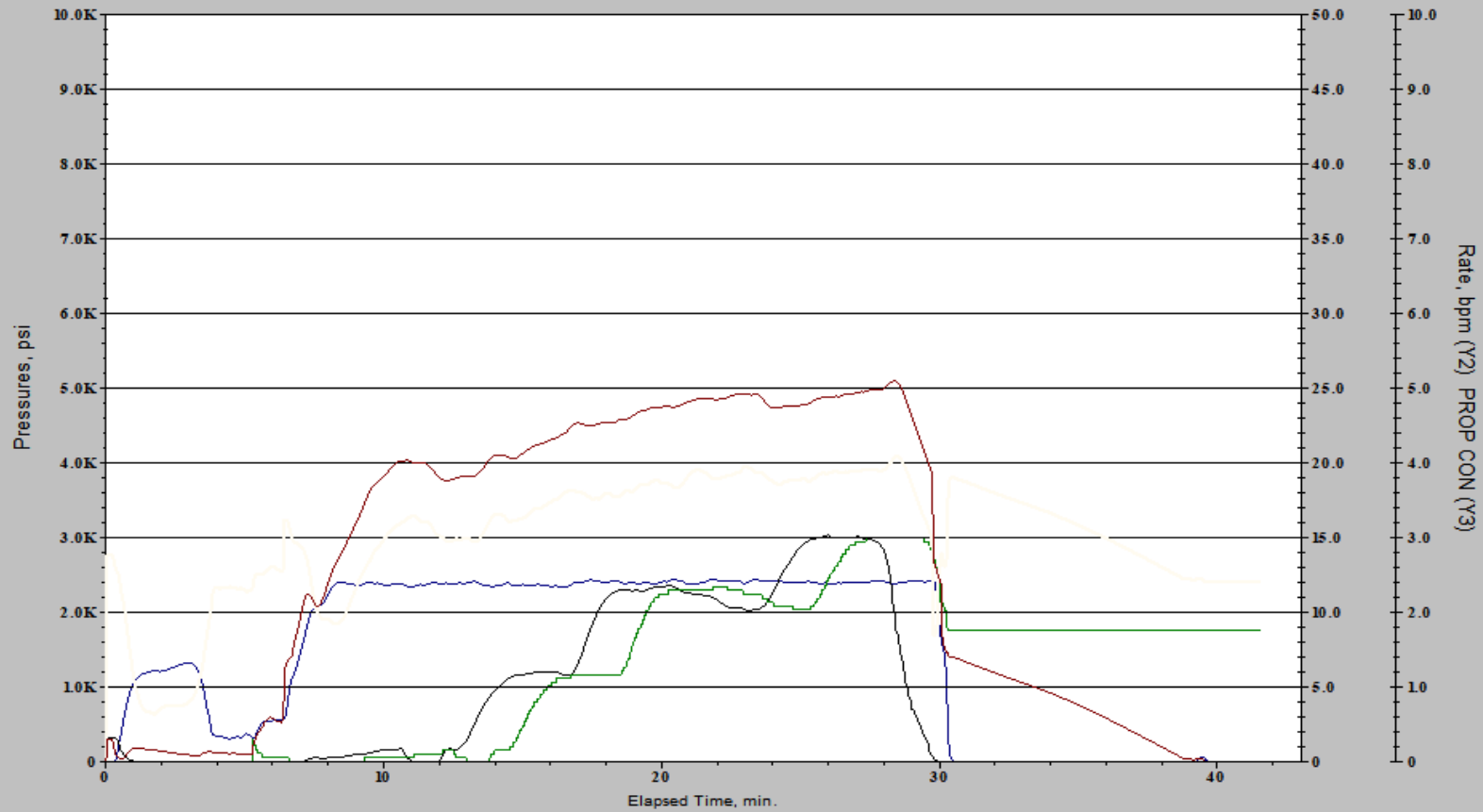
**Mr. Mark Brown  
Brown Oil and Gas, LLC  
Julie Campbell #1  
Section 8- T11N - R54W  
Logan County, Co  
API #: 05-075-09346  
AFE #:**

**D-Sasnd  
Zone: 1  
Perfs: 5,270'-5,280'**

**Treated by:  
Josh Bookless**

**Prepared by:  
Josh Bookless**

# Frac Julie Campbell #1 D-Sand



Brown Oil and Gas, LLC  
Julie Campbell #1  
D-Sasnd  
API #: 05-075-09346  
Perfs: 5,270'-5,280'  
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Zone: 1



Design

Stage #	Stage Time (min.sec)	Fluid Design	Clean Volume (gal)	Clean Volume (bbls)	Cum. Clean Volume (bbls)	Slurry Volume (bbls)	Cum. Slurry Volume (bbls)	Proppant Conc. (ppg)	Stage Proppant (lbs)	Cum. Proppant (lbs)	Slurry Rate (bpm)	Stage Design	WG-1SLR		XLB-1		KCL-2Sub		BIO-2L		Surf Plus		B-1		B-4LE	
													6.25 gpt		1.50 gpt		2.00 gpt		0.30 gpt		2.00 gpt		3.00		0.30	
													gpt	Cum gal	gpt	Cum gal	gpt	Cum gal	gpt	Cum gal	gpt	Cum gal	gpt	Cum gal	gpt	Cum gal
1	2.38	25# Linear	500.0	11.9	11.9	11.9	11.9	0	0	0	5	Pre-Pad	6.25	3.1	0.00	0.0	2.00	1.0	0.30	0.2	2.00	1.0	2.00	1.0	0.30	0.2
2	5.95	25 # Xlink	3000.0	71.4	83.3	71.4	83.3	0	0	0	12	Pad	6.25	21.9	1.50	4.5	2.00	7.0	0.30	1.1	2.00	7.0	2.00	7.0	0.30	1.1
3	4.15	25 # Xlink	2000.0	47.6	131.0	49.8	133.1	1	2000	2000	12	20/40 White	6.25	34.4	1.50	7.5	2.00	11.0	0.30	1.7	2.00	11.0	2.00	11.0	0.30	1.7
4	6.50	25 # Xlink	3000.0	71.4	202.4	77.9	211.1	2	6000	8000	12	20/40 White	6.25	53.1	1.50	12.0	2.00	17.0	0.30	2.6	2.00	17.0	2.00	17.0	0.30	2.6
5	3.01	25 # Xlink	1333.0	31.7	234.1	36.1	247.1	3	3999	11999	12	20/40 White	6.25	61.5	1.50	14.0	2.00	19.7	0.30	2.9	2.00	19.7	2.00	19.7	0.30	2.9
6	1.73	25# Linear	874.0	20.8	254.9	20.8	268.0	0	0	11999	12	Flush	6.25	66.9	0.00	14.0	2.00	21.4	0.30	3.2	2.00	21.4	4.00	23.2	0.30	3.2
Totals	23.72		10707			268	268		11999					66.9		14.0		21.4		3.2		21.4		23.2		3.2

% Pad 4.7%

Cumulative Proppants (lbs)

20/40 White	16/30 White	16/30 CRC-C	0
11999	0	0	0

25 # Xlink

	GPT	Units	7	bpm	10	bpm	12	bpm	14	bpm	17	bpm
WG-1SLR	6.25	gal/Mgal	1.84	gal/min	2.63	gal/min	3.15	gal/min	3.68	gal/min	4.46	gal/min
Buffer-4L	0.00	gal/Mgal	0.00	gal/min	0.00	gal/min	0.00	gal/min	0.00	gal/min	0.00	gal/min
XLB-1	1.50	gal/Mgal	0.44	gal/min	0.63	gal/min	0.76	gal/min	0.88	gal/min	1.07	gal/min
KCL-2Sub	2.00	gal/Mgal	0.59	gal/min	0.84	gal/min	1.01	gal/min	1.18	lb/min	1.43	gal/min
BIO-2L	0.30	gal/Mgal	0.09	gal/min	0.13	gal/min	0.15	gal/min	0.18	gal/min	0.21	gal/min
SA-1W	0.00	gal/Mgal	0.00	gal/Mgal	0.00	gal/Mgal	0.00	gal/Mgal	0.00	gal/Mgal	0.00	gal/Mgal
B-3	0.00	lb/Mgal	0.00	lb/min	0.00	lb/min	0.00	lb/min	0.00	lb/min	0.00	lb/min
Surf Plus	2.00	gal/Mgal	0.59	gal/min	0.84	gal/min	1.01	gal/min	1.18	gal/min	1.43	gal/min
B-1	3.00	gal/Mgal	0.88	gal/min	1.26	gal/min	1.51	gal/min	1.76	gal/min	2.14	gal/min
B-4LE	0.30	gal/Mgal	0.09	gal/min	0.13	lb/min	0.15	gal/min	0.18	lb/min	0.21	gal/min
FR-1	0.00	gal/Mgal	0.00	gal/min	0.00	gal/min	0.00	gal/min	0.00	gal/min	0.00	gal/min

20 # Xlink

Maximum Pressure: 5000  
TVD 5270

# Brown Oil and Gas, LLC

Julie Campbell #1

Section 8- T11N - R54W

Logan County, Co

API #: 05-075-09346

AFE #:

Perfs: 5,270'-5,280'

Zone: 1

Actuals

Date: 10/23/2021

Treated by:  
Josh Bookless



Stage #	Design Clean	Fluid Design	Stage Design	Start Time Stage Start	Elapsed Time Stage Start	Maximum		Stage		Cumulative		Proppant			Comments
						Treat Press	Slurry Rate	Clean	Slurry	Clean	Slurry	Prop	Stage	Cumulative	
						(psi)	(bpm)	(bbl)	(bbl)	(bbl)	(bbl)	(ppg)	(lb)	(lb)	
1	11.9	25# Linear	Pre-Pad	9:12:58	0:07:07	621	5.5	28.1	28.1	28.1	28.1	0.0	0	0	B4LE 0.3 50/50 Entire Job, AP 2#, Then Bump to 4# on 3# Sand Thru Flush
2	71.4	25 # Xlink	Pad	9:20:05	0:05:47	3907	12.0	65.7	65.7	93.7	93.7	0.0	0	0	
3	47.6	25 # Xlink	20/40 White	9:25:52	0:04:14	3866	12	47.6	50.6	141.3	144.3	1.4	2800	2800	
4	71.4	25 # Xlink	20/40 White	9:30:06	0:06:44	4535	12.2	73.8	80.8	215.1	225.2	2.1	6489	9289	
5	31.7	25 # Xlink	20/40 White	9:36:50	0:04:13	4757	11.9	45.7	52.3	260.8	277.4	3.1	6025	15314	
6	20.8	25# Linear	Flush	9:41:03	0:01:56	5083	12.1	20.8	20.8	281.6	298.2	0.0	0	15314	
			Shut Sown	9:42:59	0:30:01										

Total Volumes (bbls)						Total Proppant (lbs)			
25# Linear	25 # Xlink	Flush	0	0	0	20/40 White	16/30 White	16/30 CRC-C	0
49	233	0	0	0	0	15314	0	0	0

Max Treating Pressure: 5083 psi  
 Average Max Treating Pressure: 3795 psi  
 Max Slurry Rate: 12.2 bpm  
 Average Max Slurry Rate: 11.0 bpm  
 Total Clean Volume: 281.6 bbls  
 Total Slurry Volume: 298.2 bbls  
 ISIP: 1401 psi  
 Fracture Gradient: 0.699

## Job Notes:

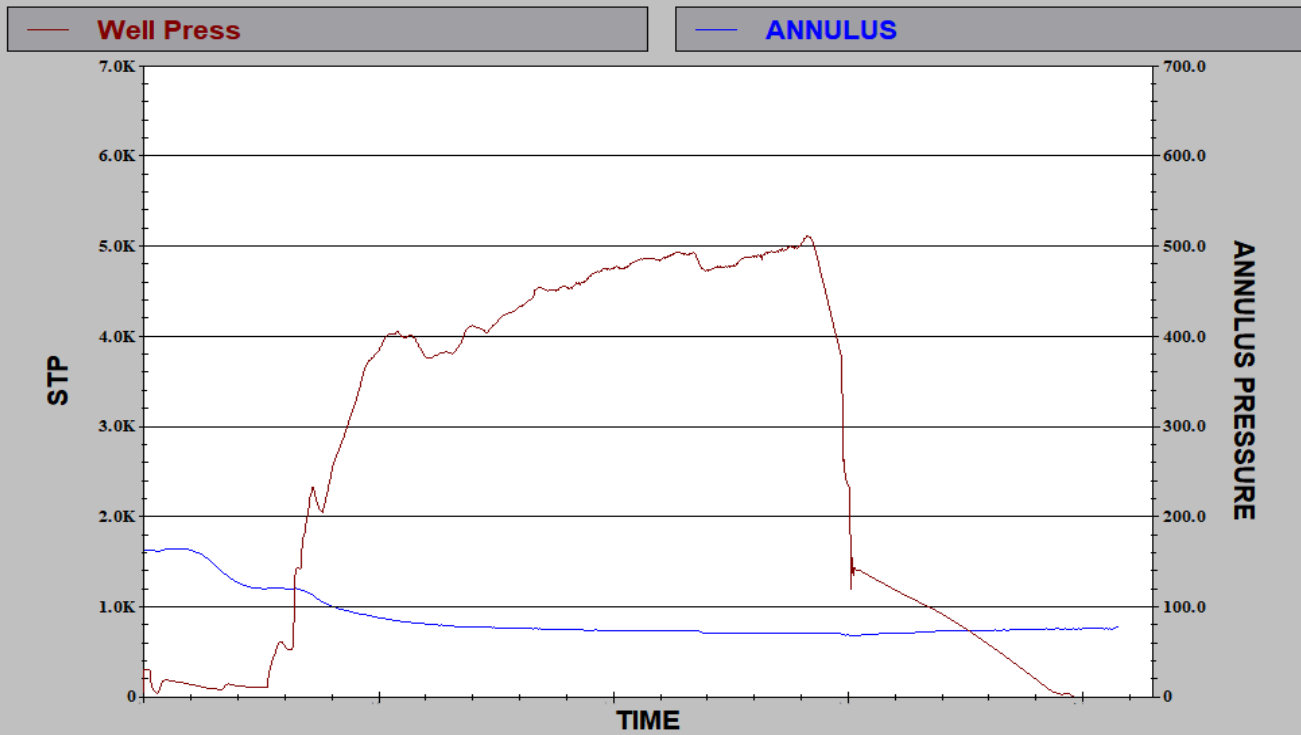
1 Pressure Test to: 6500 psi  
 2 Safety Meeting at: 9:00  
 3 Opening pressure: 0 psi  
 4 Max Annulus pressure: 157 psi  
 5 Max Sand Concentration: 3.02 ppg  
 7 5min: 705 psi  
 8 10min: 0 psi  
 Gel left in hydration unit 20 bbls

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Zone Number 1          FINAL JOB TOTAL REPORT
STAGE    CARRIER    FLA    SOLIDS    SLURRY    JOB AVERAGES
#    PUMPED DESIGNED    CONCENTRATION    WEIGHT    PUMPED DESIGNED SLR-RATE STP    BHP    SOLIDS
.    .    PUMPED PUMPED DESIGNED PUMPED DESIGNED
.    BBLs    BBLs    gal    ppa    ppa    LBS    LBS    BBLs    BBLs    bpm    psi    psi    ppa
=====
1    28.1    11.9    0.00    0.01    0.00    6.97    0.00    29.3    11.9    4.2    379.20    1870.51    0.02
2    65.7    71.4    0.00    0.10    0.00    282.70    0.00    68.3    71.4    11.7    3451.47    2716.51    0.10
3    47.6    47.6    0.00    1.10    1.00    2199.10    2000.00    50.2    49.8    11.9    4205.53    3355.60    1.10
4    73.8    71.4    0.00    2.18    2.00    6765.47    6000.00    80.8    77.9    12.1    4755.09    3746.45    2.19
5    45.7    31.7    0.00    2.83    3.00    5431.35    3999.00    50.9    36.1    12.0    4881.40    3846.68    2.87
6    20.8    20.8    0.00    0.63    0.00    628.38    0.00    22.7    20.8    2.5    1106.81    3053.63    0.41
=====
FracJob    256.4    481.1    0.00    1.42    0.59    15307.00    11999.00    272.9    494.1    9.0    3068.95    3266.92    1.38
TotlJob    284.5    493.0    0.00    1.28    0.58    15313.97    11999.00    302.2    506.0    8.1    2597.59    3022.21    1.07
#####

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Julie Campbell #1 ANNULUS PRESSURE



# Zone: 1



Quality Control Report  
Brown Oil and Gas, LLC  
Julie Campbell #1  
Section 8- T11N - R54W  
Logan County, Co  
API #: 05-075-09346

D-Sasnd  
Date: 10/23/2021

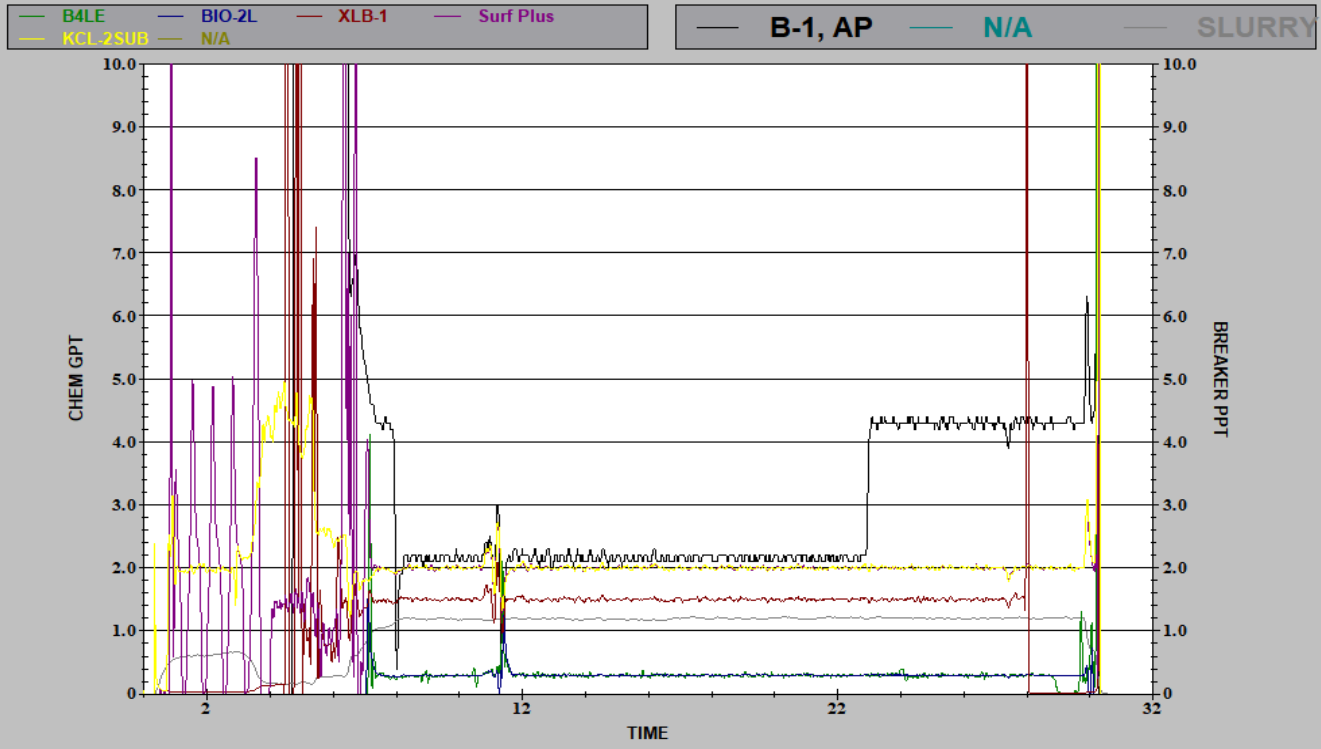
Prepared by:  
Josh Bookless

Additives	Amount Used	Concentration/1000		
		Design	Actual	Variance
Fresh Water	312 bbls	255	312	22.39%
WG-1SLR	83 gal	6.25	6.55	4.84%
XLB-1	19 gal	1.50	1.94	29.60%
KCL-2Sub	27 gal	2.00	2.28	14.15%
BIO-2L	8 gal	0.30	0.68	125.47%
Surf Plus	34 gal	2.00	2.87	43.74%
B-1	29 lbs	2.00	2.45	22.60%
B-4LE	2 gal	0.30	0.17	-43.63%
20/40 White	15314 lbs	11999	lbs	27.63%

## QC Tests:

Water SG: 1.01  
Water Weight: 8.42 ppg  
Water Temp: 60 °F  
Gel Viscosity: 17 cp  
Gel pH: 7  
Buffered Gel pH: 10  
Cross-Link Time: 4 seconds

Julie Campbell #1 CHEM PLOT





Frac Julie Campbell #1 D-Sand

